

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
3 January 2002 (03.01.2002)

PCT

(10) International Publication Number
WO 02/01347 A3

(51) International Patent Classification⁷: G06F 11/14, 9/06

(21) International Application Number: PCT/SE01/01448

(22) International Filing Date: 21 June 2001 (21.06.2001)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
09/609,111 30 June 2000 (30.06.2000) US

(71) Applicant: TELEFONAKTIEBOLAGET LM ERICSSON (publ) [SE/SE]: S-126 25 Stockholm (SE).

(72) Inventors: TSE, Edwin; 4976 Jean Brillant, Montreal, Quebec H3W 1T7 (CA). GOSSELIN, Nicolas; 110 du Blainvillier, Montreal, Quebec J7C 4Y1 (CA).

KELLEDY, Fergus; 10 Oriel Terrace, Demense Rd., Dundalk, Co. Louth (IE). O'FLANAGAN, David; 18 Haddington Square, Ballsbridge, Dublin 4 (IE).

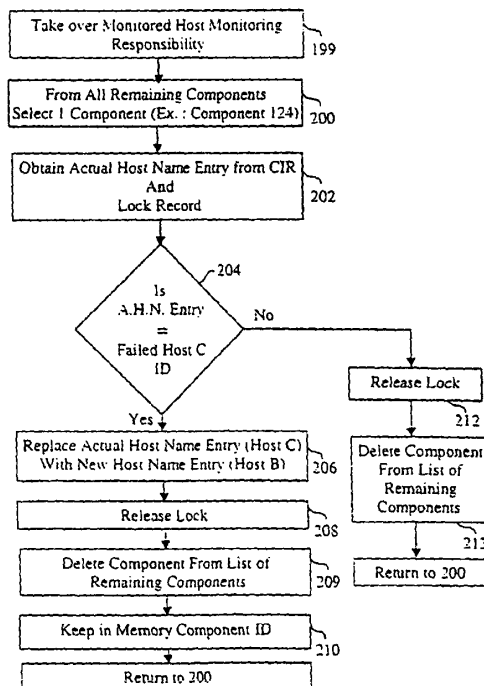
(74) Agent: BEAUCHESNE, Sandra; Ericsson Canada Inc., Dept.: LMC/UP, 8400 Decarie Boulevard, Town of Mount-Royal, Quebec, H4P 2N2 (CA).

(81) Designated States (*national*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW.

(84) Designated States (*regional*): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE).

[Continued on next page]

(54) Title: METHOD AND SYSTEM FOR AUTOMATIC RE-ASSIGNMENT OF SOFTWARE COMPONENTS OF A FAILED HOST



(57) Abstract: In a network of co-operating hosts (80, 82, 84, 86, 88), a method and system for automatic re-assignment of software components (110, 112) of a failed host to co-operating monitoring (82, 86) or back-up hosts. In a preferred embodiment, a Central Information Repository (CIR), such as an LDAP server, keeps track of software components (110, 112) running on the network hosts (80, 82, 84, 86, 88) and a Monitoring Partnership Program (MPP), in which some hosts (80, 82, 84, 86, 88) monitor the activity of other hosts (80, 82, 84, 86, 88), is provided. Upon failure of a monitored host (84), a monitoring host (82, 86) detects the failure, and informs the other monitoring hosts (82, 86) or the other back-up hosts, if any, of the failure of the monitored host (84). The monitoring hosts (82, 86), and/or the back-up hosts query the CIR for obtaining the identity of the software components (110, 112) running on the failed host (84) before the failure, and select which such components (110, 112) each will start. The monitoring hosts (82, 86) and/or the back-up hosts then take over and start the failed components (110, 112). Upon recovery, the monitored host (84) queries the CIR and obtains the list of its software components, informs the CIR and the monitoring or back-up hosts (82, 86) that it will take over, and starts its components (110, 112), while the monitoring and/or the back-up hosts (82, 86) shut down the components (110, 112) they temporarily run.



IT, LU, MC, NL, PT, SE, TR). OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).

(88) Date of publication of the international search report:
20 June 2002

Published:

— with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

INTERNATIONAL SEARCH REPORT

Inter: nal Application No
PCT/SE 01/01448

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 G06F11/14 G06F9/06

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 G06F

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	EP 0 981 089 A (LUCENT TECHNOLOGIES INC (US)) 23 February 2000 (2000-02-23) column 3, line 11 -column 8, line 47 abstract	1-26
Y	EP 0 990 986 A (NCR INT INC) 5 April 2000 (2000-04-05) column 1, line 45 -column 3, line 11 column 4, line 29 -column 12, line 53 abstract	1-26
A	PATENT ABSTRACTS OF JAPAN vol. 2000, no. 04, 31 August 2000 (2000-08-31) & JP 2000 010822 A (YOKOGAWA ELECTRIC CORP), 14 January 2000 (2000-01-14) abstract	1-26

☐ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

* Special categories of cited documents :

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier document but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

"Z" document member of the same patent family

Date of the actual completion of the international search

21 November 2001

Date of mailing of the international search report

03.01.2002

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,
Fax: (+31-70) 340-3016

Authorized officer

Fredrik Wahlin

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/SE 01/01448

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
EP 0981089	A	23-02-2000	US 6195760 B1	27-02-2001
			AU 4020499 A	10-02-2000
			EP 0981089 A2	23-02-2000
			JP 2000105756 A	11-04-2000

EP 0990986	A	05-04-2000	US 6202149 B1	13-03-2001
			EP 0990986 A2	05-04-2000
			JP 2000112911 A	21-04-2000

JP 2000010822	A	14-01-2000	NONE	
